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2  
3 SUPERFUND PROGRAM PROPOSED PLAN4 METAL BANK SUPERFUND SITE  
5 Philadelphia, PA  
67 ORIGINAL  
(IN BLUE & PENCIL)8 - - -  
9 Thursday, July 27, 1995  
10 - - -11 Public meeting held at the Disston  
12 Recreation Center, 1511 Disston Street, Philadelphia,  
13 Pennsylvania, on the above-mentioned date, commencing  
14 at 7:30 p.m., before Diane C. DiMidio, Registered  
15 Merit Reporter.  
16 - - -17  
18  
19 KARASCH & ASSOCIATES, INC.  
20 Registered Professional Reporters  
21 The Waldron Building  
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25

## 1 MEMBERS OF THE PANEL:

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1 MS. BARNETT: Good evening, everyone. My  
2 name is Amy Barnett and I'm with the Environmental  
3 Protection Agency.

4 I'm here tonight to talk about the  
5 Metal Bank Superfund Site, which is on the banks of  
6 the Delaware River, not too far from here.

7 Specifically, we're going to be  
8 talking about the proposed cleanup alternatives for  
9 the Metal Bank Superfund Site. If anybody is here for  
10 some other reason, then I just wanted to make that  
11 clear from the start.

12 In addition to myself tonight, we  
13 have other members of the Environmental Protection  
14 Agency who are going to be talking about the Metal  
15 Bank site. They are Cesar Lee, who is the Remedial  
16 Project Manager. He is going to be making the  
17 majority of the presentation; Bruce Rundell, who's  
18 with our -- he is our groundwater specialist. And we  
19 also have Roy Smith, who is a toxicologist with the  
20 EPA and he will be talking about health-related  
21 issues. And we also have members of our National  
22 Oceanic and Atmospheric Administration in attendance  
23 in the audience as well.

24 If anybody wants more information  
25 once you hear what we have to tell you tonight, we

1 have quite a bit of information at the Northeast  
2 Philadelphia Library on Cottman Avenue. You can go  
3 there and get more information about the site.

4 Yes?

5 MS. McELHONE (A Member of the  
6 Audience): There's nothing there.

7 MS. BARNETT: There's nothing  
8 there? We'll check into that.

9 Okay. Don't go to the Northeast  
10 Philadelphia Library on Cottman Avenue looking for  
11 information. We'll have to look into that.

12 Our agenda tonight is that  
13 following my introduction, César Lee is going to spend  
14 some time talking about the history of the site. He's  
15 going to talk about some of the options that we have  
16 for cleanup, and then we're going to have a short  
17 presentation by Bruce Rundell about some of the  
18 groundwater issues and a short presentation by Dr.  
19 Smith about some of the health-related issues.

20 If you have questions as we go  
21 along, we'd appreciate it if you hold them until the  
22 end because some of your questions may be answered as  
23 we go along. However, if you feel like you're going  
24 to forget or you feel like something that comes later  
25 might be compromised if you don't have the answer to

1 your question, then do raise your hand and we will  
2 call on you during the presentation.

3           You notice here to my left we have  
4 a stenographer who is taking down everything that  
5 everyone says tonight because we have not made a  
6 decision about what cleanup option we would like to  
7 use, although we have identified a preferred  
8 alternative, one that we think is going to work the  
9 best. However, we do need comments on all of the  
10 alternatives and what you all think is best, and in  
11 order to do that we need somebody who can write all  
12 this stuff down and give it to us in a written form so  
13 we can then address it.

14           All of the comments that we get  
15 tonight or that we receive through the mail during the  
16 comment period, which is in effect right now, we will  
17 address in something that is attached to the decision  
18 that we make, which is called a Response and Summary.

19           Because we have a stenographer,  
20 when you ask your questions after we conclude our  
21 presentation, please state your name. And if your  
22 name is difficult, please spell it for her.

23           Do we have any questions before we  
24 start? Yes?

25           MS. McELHONE: My name is Virginia

1 McElhone, M C E L H O N E.

2 Would you please tell me what  
3 notification system was used to tell people about this  
4 meeting.

5 MS. BARNETT: Okay. We put  
6 advertisements in one of the local newspapers and we  
7 also put an advertisement in the Philadelphia  
8 Inquirer. There was one advertisement that occurred  
9 two weeks ago and one that occurred yesterday. And in  
10 addition we also mailed out some of the proposed  
11 cleanup alternative plans, which are in the back of  
12 the room, and there should have been one at the  
13 library. I apologize for that not being there and  
14 I'll have to follow up on that.

15 MS. McELHONE: So the only  
16 advertisement was a notification in the newspaper  
17 which would have been anywhere within the newspaper?

18 MS. BARNETT: Yes. It may have  
19 been anywhere in the paper.

20 We did also a couple of months ago  
21 drive around and tried to get names and addresses of  
22 industries or residents who may live near the actual  
23 site. But I have to tell you we didn't really come  
24 into this neighborhood because there would have been  
25 so many people and our mailing list would have been

1 hundreds or even up to thousands of people.

2 MS. McELHONE: All you need is 'one  
3 loud voice. So I think you finally reached the right  
4 people.

5 MS. BARNETT: Okay. Without  
6 further ado, Cesar Lee.

7 MR. LEE: A lot of these overheads  
8 that I will be showing you are in your Proposed Plan  
9 and I'll mention if they aren't.

10 First is where the site is located  
11 at. We're over here and the site is located towards  
12 the river. And if you were driving on I-95, you would  
13 have seen the building, which is part of the site over  
14 here. There's a courtyard, which we'll be referring  
15 to in part of the remedy behind the building or for  
16 the building, and over here is the Delaware River.

17 MS. BARNETT: Can everybody hear  
18 Cesar? Okay.

19 MR. LEE: This next picture, just  
20 to get everybody familiar with the site, is the names  
21 of different areas of the site which we'll be  
22 referring to in the remedy.

23 The first is -- a couple things  
24 first. The building area is here, which you see in  
25 this slide here. Located adjacent to it is St.

1 Vincent's School, which is over here. Once again the  
2 building is here.

3 Across over here is the marina, a  
4 yacht club, Quaker City Yacht Club, located right  
5 about here. When there's high tide, this is what you  
6 see, and you're looking at the site standing from over  
7 here. This will be part of the Delaware River.

8 Also surrounding the site if you  
9 were standing over here looking towards your east will  
10 be industrial areas. This is a scrap metal yard. And  
11 once again if you're standing over here, you would see  
12 the Delaware River again.

13 There's -- these are monitoring  
14 wells, which we've installed on site. We'll get to  
15 that a little later.

16 This is what we call the riprap  
17 area right over here that borders the site right along  
18 here. You can see from this picture there are boats  
19 along there, stationed along there, recreation boats.  
20 What's interesting about this is when it's low tide  
21 here, you can see an oil sheen seeping in the Delaware  
22 River. There's also people who fish around here from  
23 boats or from land. Once again we're standing along  
24 here at the riprap area.

25 Over here we're standing right



1 around about over here when the tide gets low. You  
2 could actually walk on it and from this picture this  
3 individual uncovers the top layer and they can see a  
4 little oil underneath there, and in this oil we found  
5 PCBs in pretty elevated concentrations. So there is a  
6 relation between the tide from the Delaware River and  
7 this mudflat area.

8 This is a well that I noted a  
9 little before, which is located right about here, and  
10 you notice when we took a water sample from this well,  
11 you see the oil dripping from that groundwater  
12 sample. Once again there were some pretty high levels  
13 of PCBs noted in there, and that's in that photograph  
14 that's attached to the Proposed Plan, the actual  
15 levels of the PCBs.

16 This picture is taken about around  
17 here, which we call the southern portion of the site.  
18 When we excavated this area we found a lot of debris.  
19 Some of the debris included copper, wires and plastic  
20 bags and so forth.

21 This next transparency, I just want  
22 to go down the line of what the site issues are.  
23 Between 1950 to 1967 the site -- the southern portion  
24 of the site was basically part of the Delaware River  
25 until it got filled up to its present elevation.

1                   Between 1968 to 1973 this facility  
2 was used as a place for recycling transformers, taking  
3 the oil out and recovering whatever salvageable parts  
4 that are concerned with transformers.

5                   About 1972 the Coast Guard came out  
6 to investigate reports about spills in the Delaware  
7 River around that area, which was traced back to the  
8 site.

9                   About 1977 the EPA took the lead on  
10 this site because of the concerns about PCBs.

11                   I should just mention that PCBs is  
12 of concern to the EPA because it's known to cause  
13 cancer. It's not biodegradable but it's biocumulative  
14 and biomagnified, which means that once you -- one of  
15 the lower species or organisms ingest it it and other  
16 species ingest it after that, it just adds up until it  
17 finally gets into people who ingest whatever animals  
18 there are in the -- lower in the food chain.

19                   In 1980 the EPA and the site owner,  
20 Metal Bank, was in court attempting to resolve the  
21 cleanup remedy.

22                   In 1983 that was settled when Metal  
23 Bank agreed to install a groundwater recovery unit to  
24 recover the oil. About the same time the site was  
25 placed on the NPL. That's the National Priority List

1 on which all the superfund sites are ranked.

2 In 1989 the recovery system was  
3 dismantled. This is described in more details in the  
4 Proposed Plan of what actually happened.

5 In 1991 PRPs, which stands for  
6 Potentially Responsible Parties, in this case it  
7 consists of a lot of the utility companies, signed on  
8 to do a study which the EPA calls the RI/FS, which  
9 stands for Remedial Investigation and Feasibility  
10 Study.

11 About 1995, earlier this year, the  
12 PRPs submitted the RI/FS to the EPA, and we are at  
13 this time today basing the results of that study to  
14 try to select a remedy.

15 With that I'd like to just turn the  
16 presentation to Bruce Rundell, one of our  
17 hydrogeologists, who will be talking about the  
18 groundwaters and so forth.

19 MR. RUNDELL: The site is underlain  
20 by about five different types of material, the most  
21 important being up the top where we have man-made  
22 fill, and that fill ranges in thickness from about  
23 five feet on the landward side and it increases in  
24 thickness to about 30 feet at the edge of the river.

25 It shows you on that slide, it has

1 all kinds of stuff in it. There's basically anything  
2 that was handy when they filled it in. There was  
3 cement and there's wood and there's all kinds of stuff  
4 out there.

5 Below that are the river sediments  
6 that vary from about 10 feet to 30 feet. They thicken  
7 as you get closer to the middle of the Delaware  
8 River.

9 And below that, these river  
10 sediments are what you see in the mudflats. That's  
11 where they're exposed at low tides.

12 Below the river sediments is the  
13 Trenton gravel. It's a regional aquifer. It's about  
14 40 to 80 feet thick. It's used over in New Jersey as  
15 the drinking water supply.

16 And below that is bedrock, which is  
17 the Wissahickon shifts, which as you drive around the  
18 neighborhood you see a lot of homes built out of this  
19 really nice looking gray and silver white material.  
20 That's the Wissahickon shifts.

21 Most of what we're concerned about  
22 is what's going on in the man-made fill. The type of  
23 activities that were conducted at the site was  
24 recycling of the PCB oils in transformers where the  
25 PCB is, and there were numerous spills out there over

1 time and that oil seeped into the ground and floats  
2 pretty much on top of the water table. During the  
3 earlier action they pumped out like it was estimated  
4 about 14,000 gallons over a number of years, and  
5 basically they pumped out through wells on site as  
6 much oil as they could physically pump out. And now  
7 what we've been doing is going out and investigating  
8 the site to decide how much contamination is still  
9 left and what to do about it.

10 This -- these river sediments,  
11 which are composed of sands and silts and a little bit  
12 of clay or gravel right on top, pretty much confines  
13 this lower aquifer from the site. Most of the  
14 groundwater in the site flows directly into the  
15 river.

16 Groundwater investigation focused  
17 basically on installing a number of monitoring wells,  
18 which are these points here. There's 15 of them in  
19 all that we put throughout the site in that fill area,  
20 and from that we would take water samples to see what  
21 kind of contaminants might be dissolved in the water  
22 or what kind of products or oil might be floating on  
23 the water table. We measured that.

24 We also measured the depth from the  
25 surface of the ground down to the water table. And

1 what that gives us is the ability to make this contour  
2 map which is the top of the water table. This is like  
3 looking at a contour map of topography where high  
4 numbers like ten are up on the hill, and as you go  
5 down you get down to four feet.

6                   These numbers are feet above mean  
7 sea level. So it's just like looking at a topographic  
8 map where this is a high here of ten feet. And you  
9 basically get down here where eventually you come out  
10 right at the river level.

11                   And what that tells us is, just  
12 like on ground, everything rolls down hill.  
13 Groundwater flows down hill and it will flow from the  
14 direction of high elevation to low elevation and  
15 basically the groundwater flows across the site in  
16 this direction, which are these arrows.

17                   During the investigation we found  
18 an area that still had a little bit of oil on it,  
19 which is what you can see in the picture that Cesar  
20 showed. It's very thin, less than an inch thick.  
21 It's a tenth of an inch thick where you could measure  
22 it.

23                   But the problem is that that thin  
24 film of oil that's on top of the water table still  
25 migrates to the river. You can see that in the seeps,

1 in the areas where the groundwater would come out at  
2 the river's edge at low tides.

3 So that's pretty much our main  
4 problem as far as groundwater is concerned is the  
5 transport of that thin film of oil on top of the water  
6 table as it migrates to the river.

7 Now, I'd like to turn it over to  
8 Roy Smith to talk about the human health risks.

9 DR. SMITH: Thanks very much.

10 I assume that anyone that would  
11 come out to an unairconditioned hall for a meeting  
12 like this on a night like this must really want some  
13 information.

14 I brought along a ten-minute talk  
15 about how the EPA conducts a risk assessment. I'll  
16 talk about that for most of the ten minutes and the  
17 last couple minutes I'll show you the human health  
18 risk estimates for this site and give you an idea of  
19 what they mean and how we propose to act on them.

20 What I'll talk about first is the  
21 risk, as we estimate it, is a combination of human  
22 exposure to a chemical and the toxicity of that  
23 chemical. We'll talk about the toxicity of  
24 non-carcinogens, that is chemicals which have some  
25 kind of systemic effect but which are not believed to

1 cause cancer, how we evaluate the toxicity of  
2 chemicals that do cause cancer, how we estimate human  
3 exposure to these chemicals, and how we combine the  
4 toxicity to estimate the health risk, and I'll try to  
5 emphasize all the way through that these estimates are  
6 not best estimates. It's important that you  
7 understand this.

8 When somebody talks, for example,  
9 about the chance of dying in a traffic accident,  
10 that's estimated at about one in 65. That's a best  
11 estimate. It's maybe plus or minus ten percent for  
12 most people. That's the best estimate we can give  
13 you.

14 When we do this kind of risk  
15 assessment, what we're giving you is an upper bound  
16 estimate. There's so much uncertainty around the best  
17 estimate that we have decided -- the EPA has decided  
18 as a public policy to give the benefit of that  
19 uncertainty to the exposed public. So that our  
20 estimates are all upper bound. We make the decisions  
21 on the basis of something which is very much like a  
22 worst case risk estimate.

23 The first principle is that risk is  
24 a combination of dose, which we've calculated a thing  
25 called exposure assessment, and the toxicity of the



1 chemical, which we calculated a thing called dose  
2 response assessment. The exposure assessment is  
3 specific to each individual site. It's done tailor  
4 made for that site. The dose response assessment  
5 pertains to the chemical. So if it's arsenic, for  
6 example, we treat arsenic the same way at each site  
7 that it occurs.

8                   The principle here is important.  
9 If either exposure or the toxicity of the chemical is  
10 lacking, then there is no risk. You must have both  
11 things, dose and toxicity, for the risk to exist.

12                   Here's the process that we do with  
13 dose response for a non-carcinogen, a chemical we do  
14 not believe causes cancer. It's pretty obvious.  
15 First we get all the papers we can from the  
16 literature. We select the relevant papers of high  
17 quality. We read them all and chose the ones with  
18 high quality and we use those.

19                   We go through them and we find the  
20 smallest dose that caused some kind of bad effect in  
21 any species, anything that we consider adverse.

22                   Then we take that smallest dose and  
23 divide it by an uncertainty factor -- these  
24 uncertainty factors range from a hundred sometimes as  
25 high as three thousand -- to get a thing called a

1 reference dose. A reference dose is the dose which we  
2 are willing to say is safe. The EPA thinks that this  
3 dose is a safe dose and we set it between a hundred  
4 and three thousand times lower than any dose that  
5 causes an adverse effect in any species that we can  
6 find out about. So this is a level that is way below  
7 anything that has ever been found to cause a toxic  
8 effect in any study.

9 The EPA thinks that the reference  
10 dose is safe for human populations, including  
11 sensitive individuals. We're willing to say this dose  
12 is safe. It may be possible that some higher dose is  
13 also safe, but we're not sure.

14 For carcinogens, we do some of the  
15 same things. We go to the literature, we get the peer  
16 review papers, and then we pick the good papers, and  
17 then we pick the species that gets the most tumors per  
18 dose, the most sensitive species to the carcinogenic  
19 effect.

20 Then we find the upper bound level  
21 of tumors per dose. We don't use best estimate. We  
22 take a statistical upper bound. If this is the best  
23 estimate, then the upper bound is even higher.

24 Anyway, we take the upper bound of  
25 that estimate. The next thing we do is we then assume

1 that there is no threshold for cancer, that any dose  
2 whatsoever, no matter how low, has a very small chance  
3 of causing cancer and that if you double the dose, you  
4 double the chance, but that the only dose that will  
5 cause no cancer is zero. Anything above zero has a  
6 slight probability of causing cancer.

7 This may not be true. Some  
8 carcinogens may actually have a threshold. Little  
9 dose, little dose, little dose, no cancer, and then  
10 the cancer starts at some finite dose. But we assume  
11 that that is not so. We use a thing called a  
12 linearized multi-stage model.

13 Then we convert this carcinogenic  
14 potency study to a human potency study -- up to now  
15 we were dealing with animals -- by a metabolic rate  
16 method. I won't go into this, but it is the most  
17 conservative method. FDA, for example, uses the body  
18 weight method, which is, depending on what organism we  
19 use for your test, can be anywhere between five and a  
20 hundred times less protective than the EPA's method.

21 So the carcinogenic potency slope  
22 represents the reasonable upper bound cancer risk.  
23 Again, the important principle here is it's not a best  
24 estimate. It is an upper bound. The true risk is  
25 probably less and for some chemicals it may be zero.

1                   On the other side, the exposure  
2                   assessment, we look at each site and we decide what  
3                   kind of people might be exposed to the contamination  
4                   on the site. Typically we'll deal with future  
5                   residents, current residents, industrial workers,  
6                   construction workers, recreation users, trespassers,  
7                   all sorts of people that might come on the site and  
8                   contact the chemical.

9                   For this particular site it was  
10                  pretty obvious that future residential use is  
11                  unlikely. So we left out future residents and we  
12                  assessed industrial workers, construction workers and  
13                  recreational users.

14                  Typical exposure routes that EPA  
15                  uses: Drinking water, ambient air, soil and dust,  
16                  homegrown produce, fish and game, any way we think  
17                  people might contact these pollutants.

18                  In this case, it's very unlikely  
19                  that anyone will be drilling a well on the site and  
20                  drinking the water. So we left that out. We assessed  
21                  ambient air, soil and dust. Again, there's no  
22                  homegrown produce because we don't expect residential  
23                  use. But we did assess fish and game consumption.

24                  Each exposure assessment is  
25                  tailored to the site so that no two of them are

1 alike. We selected the exposure routes at this site  
2 based on the actual characteristics of the site.

3 Then we assume people are exposed  
4 in certain ways. We give two kinds of estimates, a  
5 central tendency estimate and a reasonable maximum  
6 estimate.

7 So here, for example, we have  
8 assumed that -- well, if we had done residents, we  
9 would assume nine years of exposure for central and 30  
10 for maximum, 350 days per year. If we had done tap  
11 water, it would have been one liter per day, two  
12 liters per day.

13 The pertinent things here are adult  
14 soil ingestion. We assume that every adult that  
15 contacts contaminants on the site ingests a hundred  
16 milligrams a day. This is equivalent to sticking your  
17 hands in potting soil and then licking them clean  
18 every day. It's a very stringent assumption. 25  
19 milligrams a day is perhaps more like the truth, but  
20 we've assumed a hundred.

21 Construction worker we've assumed a  
22 hundred for the central tendency and 480 milligrams a  
23 day for the upper bound, the reasonable maximum  
24 estimate. That's sticking your hands in potting soil  
25 and licking them clean five times a day.

1                   We assume that adults weigh 70  
2 kilograms --- that's about 155 pounds -- and inhale  
3 either 20 cubic meters of air a day or 30 as the  
4 reasonable maximum.

5                   Essentially what we did at this  
6 site was to take samples of fish tissue, soil, we  
7 chipped pieces of concrete from the insides of the  
8 buildings, we took groundwater samples out in the flat  
9 area, a lot of soil samples where we thought there was  
10 PCB contamination, and all these things went into the  
11 risk assessment as the contaminant levels that people  
12 could contact.

13                   The characterized risk then, to  
14 combine the dose and the toxicity. For  
15 non-carcinogens we got what we call a hazard  
16 quotient. This is simply a ratio between the dose,  
17 which is milligrams of contaminant per kilogram of  
18 body weight per day, and a reference dose. It's  
19 simply the dose we estimate the person could receive,  
20 divided by the safe dose. If this number is greater  
21 than one, the EPA considers it to be not acceptable.

22                   Does everybody understand that?  
23 It's basically if the estimated dose exceeds the safe  
24 dose, the EPA considers this to be unacceptable. The  
25 safe dose is set very low.

1                   For carcinogens we multiply that  
2 same dose -- that should be an X there -- it's  
3 times the carcinogenic potency slope. So it's dose  
4 times cancer risk per dose. A very simple  
5 calculation.

6                   This risk number comes out as  
7 probability. It's just like odds in betting. The  
8 cancer risk of one in a million, for example, is just  
9 like one in a million odds against an exposed person  
10 getting cancer. That means if a million people have  
11 this exposure, that we assume no more than one of them  
12 would be likely to contract cancer. No more than  
13 one.

14                   The EPA considers any risk above  
15 one in ten thousand to be unacceptable. So ten  
16 thousand exposed people, an upper bound risk of one  
17 cancer is unacceptable to the EPA.

18                   Summarizing what I've said, risk is  
19 a combination of toxicity and exposure. The dose  
20 response part is specific to the chemicals we have and  
21 it's the same for all sites. The exposure assessments  
22 are specific to the individual sites, tailored to  
23 those sites.

24                   These reasonable maximum exposures  
25 are deliberate overestimates. This is a matter of

1 science policy the EPA has developed in order to  
2 protect the exposed public.

3 The central tendency risk means --  
4 are combinations of a best exposure estimate and still  
5 an upper bound risk so there's still-- I'm sorry, an  
6 upper bound dose, dose response, so that they're still  
7 very protective. In all cases, the true risk is  
8 probably less and may be zero. It's important to  
9 remember those things.

10 Here's the kind of risks we live  
11 with. Risk for a smoker, lung cancer, is about one in  
12 11. Death in a traffic accident over your whole life  
13 is one in 65. Chance of getting cancer from drinking  
14 chlorinated tap water is about one in ten thousand,  
15 which is EPA's upper limit. Chances of getting cancer  
16 from eating a couple of peanut butter sandwiches a day  
17 are about one in one hundred thousand.

18 And this is my personal favorite.  
19 The chance of being killed by having an airplane fall  
20 on you is four in one million in a lifetime. Nobody  
21 worries about this except that it does happen. You  
22 remember a few years ago when Senator Heinz died. His  
23 plane landed on I think it was four school children.  
24 So this does happen. It's a real risk, but it's a  
25 remote possibility and no one stays up at night



1 worrying about it.

2 Here are the risks that are  
3 calculated at the Metal Bank site. There were three  
4 groups of receptors here, adult resident, child  
5 resident and adult employee. Adult employee in this  
6 case includes both workers who just work on the site  
7 but don't excavate, and also construction workers who  
8 do excavate.

9 There are a number of NAs here.  
10 These happened because the chemicals that we detected  
11 did not have reference doses. EPA has reference doses  
12 for over five hundred substances, but in fact there  
13 was nothing of importance from the non-carcinogenic  
14 point of view for these NAs.

15 For recreational use of the river,  
16 the adult resident had a hazard index of about three  
17 one-thousandths and the child had a hazard index of  
18 about one percent. This means that the non-cancer  
19 doses were far, far lower than anything that would be  
20 of concern. Remember, this has to be one before the  
21 EPA starts to worry about it.

22 However, cancer risk is three times  
23 ten to the minus four here. That means three in ten  
24 thousand. So that is somewhat above EPA's level for  
25 action, and the child had a risk of two in ten

1 thousand. These two can be combined for a combined  
2 risk of five in one thousand for someone who grows up  
3 eating fish on the river. This is entirely due to  
4 PCBs in the fish tissue. There's no other contaminant  
5 that contributed to this number at all.

6 Over here with the adult employee,  
7 skin contact with groundwater had a very small hazard  
8 index. Incidental ingestion and normal contact with  
9 surface soil, again, very small. Subsurface soil was  
10 more contaminated but still was not a significant --  
11 a non-cancer hazard, and even the oil layer floating  
12 on top of the groundwater did not present -- a  
13 non-cancer hazard.

14 From the point of view of cancer  
15 risk, all of these numbers here are below one in ten  
16 thousand. This is six in one million, that is seven  
17 in one hundred thousand, that is one in one hundred  
18 thousand.

19 And this one here is six in one  
20 thousand. That's another high one. This is the risk  
21 caused by the dermal contact of a construction worker  
22 with the oily layer on top of the groundwater. This  
23 oily layer has a very high concentration of PCBs. And  
24 the construction worker that contacted this stuff, got  
25 it on ten percent of his skin for just one hour in his

1 entire life, we estimate would have a risk of  
2 something like six in one thousand. So clearly this  
3 is contaminated stuff and dermal contact with it is  
4 very dangerous.

5                   These three things then --  
6 actually these two things, PCB in the fish tissue here  
7 and PCBs in the oily layer floating on the groundwater  
8 at the site, are the only things we found in all these  
9 samples that could conceivably present an unacceptable  
10 human health risk. They need to be addressed in some  
11 way. All of the rest of the samples did not show any  
12 particular hazard to human health.

13                   Okay? If you have questions about  
14 it, why don't you save them for later, and I'll turn  
15 it back over to Cesar.

16                   MR. LEE: That slide that Roy just  
17 showed is not in the Proposed Plan, but what we came  
18 out with in the Proposed Plan, we used his number and  
19 crunched it in order to better define different areas  
20 like the riprap area, what the final risks are.

21                   This next transparency is in the  
22 Proposed Plan. Just so you don't get scared of it,  
23 it's really pretty much detailed and it's more for the  
24 scientific people who want to review the proposed  
25 plans. The areas that we put in circles, for example,

1 over here are the highest observed PCB levels. Just a  
2 quick overall view. If you wanted to get more into  
3 details, these are in parts per million, which we've  
4 identified in here. This is, for example, the surface  
5 soil in the courtyard area, which if you wanted to  
6 really get into detail, you could cross reference up  
7 on this chart where they are at.

8 Other areas are like the chip  
9 samples we took in the building. The mudflat area,  
10 that's the area where the tide is, when it subsides  
11 what we found, the highest elevation in there. And  
12 soil boring, that's subsurface soil areas.

13 Once again, I don't want to confuse  
14 you. I think you want to see where it relates overall  
15 in the scope of the picture. So if you need to review  
16 that more in detail or have any questions, you can ask  
17 me later.

18 In addition to Roy doing the human  
19 health risk assessment, there were other specialists  
20 from the U.S. Fish and Wild Life Services who did  
21 assessment, how it relates to animals, and specialists  
22 from NOAA, who did assessments of how it relates to  
23 fish and aquatic species. The best way we could  
24 crunch everybody's risk assessment together is in a  
25 format in the Proposed Plan. I think that was in

1 Table One. And we identified the different problem  
2 areas.

3 What I've done was took those  
4 tables inside the Proposed Plan and crunched it with  
5 Table Two, which identifies the alternatives, and just  
6 laid it out for you what our proposed alternatives  
7 are.

8 Once again we're going over  
9 different areas. The building area, which includes  
10 the site boundary, that's everything encircling the  
11 site, the courtyard area, the river sediment areas,  
12 which includes the mudflat and the riprap and the  
13 Delaware River sediment areas, and the southern  
14 portion of the site. And another medium was the  
15 groundwater.

16 In all these different areas we go  
17 into like what we're going to do with respect to,  
18 let's say, in the building area we sampled where the  
19 concrete floors and walls were, what our action would  
20 be.

21 So I think the best way I could  
22 show you what we are going to do is through this slide  
23 and this transparency.

24 We found that the sediments in the  
25 river were pretty contaminated and based on guidance,

1 we were going to remove it to a level that's  
2 acceptable to living organisms who would inhabit that  
3 area.

4 The first measure we would put  
5 what's called a temporary sheet pile cofferdam --  
6 this picture shows what it looks like -- in order to  
7 excavate the contaminant material from down in that  
8 mudflat area. Of course the river sometimes would  
9 overflow it and also in flood conditions some of the  
10 water would rise higher than what it normally would.  
11 So that would keep the water out temporally while we  
12 do the work in that area called the river sediment  
13 area.

14 MR. LABENZ (A Member of the  
15 Audience): How deep is the contamination?

16 MR. LEE: In the river sediment  
17 area? We estimate -- it's in the Proposed Plan. We  
18 saw it up to six feet in some cases.

19 This is another shot of that  
20 temporary cofferdam. So it is a common practice.

21 Also in that area based on the map  
22 I showed you, the PCB concentrations, I've Xed out the  
23 areas that we found levels that were high and how  
24 we're going to remove it. The levels are above our  
25 cleanup level of 25 parts per million. This is

1 actually a different depth profile of what's in the  
2 southern portion of this site. So at three feet these  
3 are the two high areas that we'll take out, excavate  
4 and dispose. At eight feet about these two areas  
5 here. At 16 feet it's that area.

6 So all together there's almost like  
7 three hot spots. And in addition to this, in the  
8 courtyard area we have surface soil which is marked  
9 hot. That will be taken out and disposed of.

10 Also, we have an underground  
11 storage tank we think is still there and it's still  
12 leaking because based on the oil samples that we've  
13 taken up from a nearby well that's located about in  
14 this area, we think that's what's causing the oil, is  
15 still this source here.

16 After we build this wall and take  
17 out the sediments and then dispose of these areas,  
18 part of our remedy will include a permanent sheet pile  
19 wall and oil water separator. I'll try to best  
20 explain that.

21 What that is, it surrounds the site  
22 and the water fluctuates up and down. Some of the  
23 water floats over here, but some of the water is as  
24 high as here. And based on what we sampled so far,  
25 most of the oil that we detected had PCBs, and being

1 that PCBs float on the top, we would tend to capture  
2 it through these portholes.

3                   It's kind of hard to explain. You  
4 wonder how does it get to these sort of like sumps or  
5 manholes in here. Well, the way it's done is through  
6 the trenches that would cover the banks of the site.  
7 In fact, this is a sheet pile wall that's installed to  
8 hold back the site from slushing into the river. And  
9 behind there is the sump trench.

10                   An example of the sheet pile wall  
11 is this. There's another close-up view of that, the  
12 sheet pile wall.

13                   This picture is useful because it  
14 shows kind of like a pipe, which for this sheet pile  
15 wall drains the water and in which case these will run  
16 right along the sheet pile wall.

17                   The concept of that is something  
18 like out in here where you have a pipe. Instead of  
19 having a pipe, you have something that goes the total  
20 depth and you can see from this picture all this water  
21 comes gushing out into sort of like a manhole that  
22 you've seen previously. And being that oil is lighter  
23 than water, it will float on the top and then from  
24 that our remedy will be to remove the oil from the  
25 top.



1                   That's just another picture of that  
2 sheet pile wall from the area shot.

3                   So basically, just to recap our  
4 proposed remedy, the building area and the site  
5 boundary, that's the whole site, we intend to put  
6 access restrictions on it and deed restrictions.  
7 Also, the access restriction will include something  
8 like a fence. If the fence is there already, we  
9 intend to maintain that fence for the duration of the  
10 life of the site.

11                   For the courtyard area the surface  
12 soil we intend to excavate and dispose of off-site.

13                   River sediment areas, which is the  
14 sediments, we intend to excavate and relocate as fill  
15 for the hot spots.

16                   MR. LABENZ (Member of the  
17 Audience): You skipped deed restriction.

18                   MR. LEE: Deed restriction.  
19 Basically that's for future land use, which we don't  
20 intend to see any homes being built there.

21                   MR. LABENZ: I think that's a flaw  
22 in your study.

23                   MR. LEE: You do?

24                   MR. LABENZ: The only current use  
25 for any of these waterfront properties in the last, I

1 guess, 20 years is properties and facilities similar  
2 to Salem Harbor. There is no industry moving back  
3 into this area.

4 MR. LEE: Are you saying there  
5 might not be any home development?

6 MR. LABENZ: No, I'm saying there  
7 will be. It's the only thing left to put there,  
8 especially with many of the things that Green Space  
9 and the Pennsylvania Environmental Commission are  
10 trying to do, open up access ways along the waterfront  
11 there for the public. So they will be clamoring to  
12 get homes or residences and condominiums similar to  
13 those that are being developed along the Delaware  
14 now.

15 So your study really was flawed  
16 because you didn't consider residences.

17 MS. McELHONE: Why would they do  
18 that if the City didn't tell them?

19 MR. LABENZ: If you look at the  
20 development along the waterfront, that's the only  
21 thing going in.

22 DR. SMITH: The main purpose of a  
23 deed restriction here based on a human health point of  
24 view would be to prevent use of the groundwater.  
25 Other than that, at least, again, just from the human

1 health point of view, there would be no particular  
2 significant risk for recreational use of the property.

3 MR. LABENZ: For recreational use.  
4 I'm saying basically it will be residences in the  
5 future.

6 DR. SMITH: Even that, as long as  
7 they're not drinking water from wells, that's the  
8 crucial thing.

9 MR. LABENZ: My name is Jim Labenz,  
10 L A B E N Z, President of Tacony Civic Association.

11 MS. McELHONE: But that deed  
12 restriction will be on there that says you cannot  
13 build housing.

14 MR. LABENZ: No, he said you can't  
15 use well water.

16 MS. McELHONE: Or you can't use  
17 well water.

18 DR. SMITH: Right.

19 MR. LEE: Our scenario is based on  
20 that it's not being developed for homes. That's how  
21 we approached the risk assessments.

22 DR. SMITH: That's true. But I'm  
23 just telling you that the important part of the deed  
24 restriction -- I'm not sure exactly what form it will  
25 take. We're still in the Proposed Plan stage. But

1 from a toxicological point of view, it will be to  
2 prevent contact with groundwater.

3 MR. LABENZ: Even if you have the  
4 excavation?

5 DR. SMITH: Actually the extraction  
6 system should fix the problem with excavation. That  
7 was the contact with the oily layer. And that should  
8 be removed by that. It's only in a certain place  
9 anyway. So that in fact it should be safe for  
10 excavation after the EPA is finished with it.

11 MR. ANDERSON: Let me make a  
12 suggestion here that what we need to do, I think, is  
13 to go through all the different pieces of the remedy.  
14 And then we'll get back to the residential use. I  
15 think once you see what we're doing and the way the  
16 whole thing kind of fits together, it might be a  
17 little more obvious as to --

18 MR. LABENZ: I didn't mean to chime  
19 in. It's just that when a subject was skipped, I  
20 wanted to --

21 MR. ANDERSON: That's fine. My  
22 name is Patrick Anderson. I'm the Chief of the  
23 Southeastern Pennsylvania Superfund Remedial Section.

24 MR. LEE: We were up here at the  
25 river sediment areas. They would be excavated and

1 used as fill at the hot spots if they were below that  
2 cleanup level in the hot spots.

3 In the southern portion of the  
4 site, we broke it down into two areas, the underground  
5 storage tank and what we call the NAPL area,  
6 subsurface soil area. And for that we propose  
7 disposing of the underground storage tank and then the  
8 PCB hot spots. They would not be limited to just  
9 so-called the NAPL area, which is shown on your map,  
10 those spots that were marked in red X's.

11 And for the groundwater we broke it  
12 down into two different areas, the groundwater and the  
13 oil layer on that area. The groundwater we propose  
14 just to have no action on it, and for the oil layer we  
15 propose to use an oil water separator and dispose of  
16 the oil that comes out of there.

17 To recap it, the total remedy is  
18 estimated at \$17,000,000.

19 I should mention a couple things.  
20 One, the DNAPL, which you'll read in the Proposed  
21 Plan, being that PCBs are heavier than water, they'll  
22 sink to a lower aquifer, so to speak, and we want to  
23 take a look at that to see if it's actually so. So  
24 those manholes you see will be designed so they could  
25 capture it in case that does exist and the PCBs do

1 sink.

2 Another is that the proposed remedy  
3 is based on removal of PCB levels, not the -- just  
4 oil, where there's oil just remove it. We're actually  
5 looking for the PCBs and capturing the PCBs as the  
6 source.

7 With that, I think that's it. If I  
8 could turn it back over to Ms. Barnett.

9 MS. BARNETT: Okay. We wanted to  
10 take additional questions now. I know there have  
11 already been some. But others, we'd like to hear from  
12 you.

13 Yes? Could you state your name,  
14 please.

15 MR. VALEN (A Member of the  
16 Audience): My name is Carl Valen, V A L E N, first  
17 part of Valentine.

18 I have a business across the street  
19 from this site. I want to know, when is this going to  
20 go into effect?

21 MS. BARNETT: When is the action  
22 going to start?

23 MR. VALEN: Yes.

24 MR. LEE: In about -- once we have  
25 the responsive parties who will sign up to do a

1 design, two to four years after the design you'll  
2 actually see everything done.

3 MR. VALEN: So we're looking at two  
4 to three years from, say, today? Is that what you're  
5 saying?

6 MR. LEE: No. No. It will take  
7 about maybe two years for everybody to agree to do the  
8 cleanup and the design -- start the design.

9 MR. VALEN: So you're looking at  
10 longer than two years? Is that what you're saying?

11 MR. LEE: It's within that range,  
12 yes, based on my experience.

13 MR. VALEN: Okay. That answers my  
14 question. Thank you.

15 MS. BARNETT: Other questions?  
16 Yes?

17 MR. LABENZ: Jim Labenz again.  
18 Were only PCB contaminants  
19 investigated here since the area just north of there  
20 was used extensively for asbestos removal when they  
21 demolished ships or took ships apart there? It has to  
22 be in there and maybe in major parts of your ground  
23 fill that is sitting right there.

24 DR. SMITH: No. Actually the EPA  
25 sampled for, oh, I think over two hundred different

1 contaminants in all the environmental samples. As for  
2 asbestos in particular, I don't know if we sampled for  
3 it or not.

4 MR. LEE: No, we didn't sample for  
5 asbestos.

6 MR. LABENZ: Okay. It should have  
7 been because that whole area was used to dismantle the  
8 Liberty Ships after the Second World War, as well as  
9 the Korean Conflict, and things that took place up  
10 there. They were all torn apart. Many of your PCBs  
11 came from some of those ships just above Milnor there,  
12 Northern Metal.

13 MR. LEE: I don't know how great of  
14 an impact it will have on human health risk or --

15 MR. LABENZ: Not so much now, but  
16 if they get into the excavation phase, there will be  
17 re-exposure to the construction workers especially.

18 DR. SMITH: Well, speaking  
19 generally, the only kind of asbestos that presents a  
20 health risk is what's called friable asbestos, which  
21 means dry, flaky, blowing around.

22 MS. BARNETT: Can everybody hear  
23 Roy?

24 DR. SMITH: Typically soils which  
25 are being dug up are moist. So that it's not really



1 likely, even if there are masses of asbestos there,  
2 that it would be friable. And, well, I guess that's  
3 really the only, I guess, comfort I can offer in  
4 that. I'm not sure we were aware that it was an  
5 asbestos disposal area.

6 MR. LEE: No. I should mention we  
7 did look at the other chemicals. For example, lead,  
8 had a high amount of lead in it and you could see in  
9 your Proposed Plan, I think Figure Four, which we  
10 indicated what the levels are in the groundwater and  
11 in the soil, and even based on that, Roy has found  
12 that not to be a human health threat.

13 DR. SMITH: Yes. We had analyses  
14 for over two hundred substances.

15 MR. LABENZ: That's based on the  
16 study that you've done, which doesn't include  
17 residences, which is a major concern to me, because  
18 the only future usage that I see, that I'm sure many,  
19 many of the people in the community see, will be  
20 towards building residences in that area, especially  
21 on the waterfront. Because if you look at all the  
22 water development along the Delaware that's taking  
23 place now -- well, look at what they're doing to the  
24 prison. People live there. They may be prisoners,  
25 but they live there. And they're not using the

1 groundwater, I'm sure, but it's a major concern.  
2 That's right up the street from where this site is. A  
3 major prison. They just rebuilt it.

4 MS. BARNETT: Well, these kind of  
5 comments are the ones that are good to be getting at  
6 this meeting. As Dr. Smith said, some of these deed  
7 restrictions that we're talking about are not set in  
8 stone yet. So if you all see that this may be a  
9 future use, then that's a sign to us that we need to  
10 think carefully about what types of deed restrictions  
11 we need to put there. So we can say it's okay to put  
12 a house here, but you just can't use the water. Or is  
13 it not okay to even put residences there.

14 MR. LABENZ: Well, is it too late  
15 to go back and reassess your study there to include  
16 human occupancy? In other words, you would go back  
17 over your exposure assessment and instead of  
18 eliminating residences, as you did, include that.

19 DR. SMITH: Actually, it could be  
20 done fairly easily. Typically, I can at least give  
21 you a ball-park figure for that.

22 The residential risks of the site  
23 as it is, if we assess them, would be something like  
24 twice the industrial exposure risks, not for the  
25 construction workers, but just the on-site guys who

1 are working around but not digging.

2 MR. LABENZ: Would it require more  
3 extensive cleanup?

4 DR. SMITH: For the adult employee  
5 surface soil was about seven in ten thousand. So the  
6 risk to a resident would be about twice that or a  
7 little less than two in -- it would be close to one  
8 in ten thousand. Something like that. But that,  
9 again, that's before cleanup.

10 MR. LABENZ: But what I'm saying is  
11 it may require a more extensive cleanup than what you  
12 projected because of that.

13 DR. SMITH: Actually, I think the  
14 assessment that would be more interesting would be to  
15 calculate the health risk at the proposed cleanup  
16 level rather than the way it is now because there will  
17 be a cleanup done. So simply look at the proposed  
18 cleanup, calculate the risks after that is done. We  
19 can do that. Yes, that can be done.

20 MR. LABENZ: I think it definitely  
21 should be considered because this will impact our  
22 community's value for that area and really reflect,  
23 you know, heavily on the financial side of the area.

24 MR. ANDERSON: Understand, also,  
25 the risk scenario that Dr. Smith went through. He was

1 fifty feet along the Delaware River right straight  
2 down to Center City from Pennypack Park. We're also  
3 looking at above Pennypack Park to Glen Ford, which is  
4 an estate that's right on the river.

5 So we're talking about that little  
6 piece that you have sticking out--

7 MR. LABENZ: It would be a small  
8 recreational area --

9 MS. McELHONE: -- that's full of  
10 oils and crud and hot spot PCBs is exactly one of the  
11 areas that we want to go through.

12 MR. ANDERSON: Does it go past the  
13 prison?

14 MS. McELHONE: The prison is going  
15 to be moved back and we're going to get this whole  
16 section. It's already under proposal.

17 MR. LABENZ: Well, the prison won't  
18 go anywhere.

19 MS. McELHONE: Well, they're going  
20 to give us access to it.

21 MR. RUNDELL: What about the junk  
22 yard that's next to the site? On one side we have the  
23 really nice looking kid's home, but on the other side  
24 we have a junk yard.

25 MS. McELHONE: The junk yard is an

1 talking about a construction worker who actually would  
2 be digging down into that layer of oil that has the  
3 PCBs on it. It wasn't just even simply a construction  
4 worker rolling around in the surface soil as it exists  
5 today. You would have to physically get down into the  
6 material.

7 Now, also understand that deed  
8 restrictions are going to make it clear that there are  
9 PCBs at low concentrations that will remain on site.  
10 We'll have to sit and talk with the attorneys as to  
11 whether we can actually restrict the future land use.

12 MR. LABENZ: There's a proposed  
13 park and everything right there. It's just above  
14 that.

15 MR. LEE: You mean right next to  
16 I-95?

17 MR. LABENZ: There's 95 and the  
18 entrance to Pennypack and down along the Delaware  
19 possibly. We're looking at getting a 50-foot  
20 right-of-way.

21 MR. ANDERSON: That's at least a  
22 quarter to half mile away.

23 MR. LABENZ: No, I don't think so.

24 MS. McELHONE: No, Pennypack Park  
25 is, but the right-of-way that we're looking for is

1 illegal dump which contains biologics, red bag  
2 hospital waste, as well as newspapers and stuff.  
3 That's also supposed to be cleared out of there also  
4 some day.

5 MR. LABENZ: There's a Senatorial  
6 investigation into that.

7 MR. RUNDELL: Okay. I was just  
8 curious what you had in mind in that area.

9 MS. McELHONE: That's a whole other  
10 one.

11 MR. GRELLER (A Member of the  
12 Audience): We're right next door to that. Morris  
13 Iron and Steel. We have nothing to do with Northern  
14 Metals where the paper is. We're spending this year  
15 alone two hundred fifty thousand dollars for  
16 concrete. The board of directors of our company asked  
17 me to come here tonight because we're concerned about  
18 the property next door and we have expansion plans.  
19 We're thinking about leaving the Philadelphia area.  
20 Now we have 60 employees. We're concerned about the  
21 hazards.

22 Ron Greller, G R E L L E R, Morris  
23 Iron and Steel.

24 During the cleanup what kind of  
25 hazards will our employees have?

1 MR. RUNDELL: It's really a risk  
2 scenario. For your employees to be at risk they have  
3 to be exposed, and unless they're actually digging up  
4 in the --

5 MR. GRELLER: Which we won't be.

6 MR. RUNDELL: Right. The people  
7 who will be at risk will be the people actually doing  
8 the remediation.

9 The only other risk I can think of  
10 is some dust, which is minimal.

11 MR. LEE: We will consider that in  
12 our remedy because the orphanage is next door, also.

13 MR. GRELLER: We were concerned  
14 about during the cleanup to our employees.

15 MR. LEE: We found that with  
16 precautions like wetting down the soil and so forth,  
17 we can remove the soil without any dust getting into  
18 the air when transporting the PCBs.

19 MR. ANDERSON: Let's get back to  
20 the residential use part. With the materials that are  
21 dug out and the new soils put down and then another  
22 cover material put back on top of it, and we're  
23 exploring the possibility of putting, for lack of  
24 something better, kind of a geotextile material marker  
25 underneath so even if all else failed, all the notices

1 in the deed, the signs on the fence and everything  
2 else that should be there for a contractor or somebody  
3 else that they should see it, that as they began to  
4 dig, they would hit this material and see that it's a  
5 warning to them that there are PCB soils that may be  
6 beneath that.

7 With all of that and the fact of  
8 the integrity of this cover, we also have an oil water  
9 separator that will be active for some amount of  
10 time. We don't know how long. It depends on the  
11 yield. If we can get all the oil off and there's no  
12 more to get, then the system will be shut down.

13 But while all of that is going on,  
14 you wouldn't use it for a residential type of setting.

15 MR. LABENZ: I'm talking sometime  
16 in the future.

17 MR. ANDERSON: You're talking far,  
18 far in the future. You know, I guess there are  
19 probably some engineering things that could be done to  
20 completely encapsulate all of that and make it viable  
21 to do it for residential use if there was a need. But  
22 it would be fairly expensive. You really have to want  
23 to develop that relatively small portion. The fact  
24 that it's fill by itself, I don't know what kind of  
25 structure you could have on it.



1 MS. McELHONE: You couldn't just  
2 clear out all the fill and let the river go back to  
3 the way it was?

4 MR. ANDERSON: Unfortunately just  
5 the depth and the volume of soil, it's really  
6 prohibitive to do something like that. It really,  
7 really is.

8 Plus you see here kind of one slice  
9 of the whole riverfront. You do that and right  
10 adjacent to it you've got a similar type situation.

11 MS. BARNETT: Any other questions?

12 MS. ANDERSON (A Member of the  
13 Audience): Judy Anderson.

14 This may have been addressed. I  
15 walked in late. I know kids go down in that area and  
16 they fish. Is there any kinds of postings right now?

17 MS. BARNETT: On the site itself  
18 you're talking about?

19 MR. LEE: There is a fish ban on  
20 the Delaware River but --

21 MS. ANDERSON: They're kids.

22 MR. LABENZ: There are no signs  
23 that restrict fishing in any way. In fact, it's  
24 really great fishing down there and if you go a little  
25 further south it's even a little bit better. Many of

1 the fish that are in the Delaware, because of the PCB  
2 contamination there throughout the Delaware, you  
3 cannot eat them.

4 MS. ANDERSON: Right. I think most  
5 people in the area are aware of that. I'm talking  
6 about the kids being there walking in that material.

7 MR. ANDERSON: It's fenced in  
8 certain portions, but I guess there is access down  
9 into the mudflat area.

10 MR. LEE: Right. Around the site  
11 area, I'm sure we could put that in our record of  
12 decisions to post signs not to fish around there.

13 DR. SMITH: There's a couple other  
14 points with that, too. This site is not the only  
15 source of PCBs in the Delaware River. It's one of  
16 quite a few. We think it's a significant source, but  
17 it's certainly not the only source. And while we  
18 think it's highly desirable to stop the PCBs leaching  
19 from this site, the fish in the river are not going to  
20 become edible any time soon. So the advisories are  
21 going to have to stay in effect. It's just that the  
22 source needs to be stopped.

23 MS. BARNETT: Any other questions?

24 MR. PRYOR (A Member of the  
25 Audience): Cesar, did you take Kelly's place?

1 MS. BARNETT: Could we have your  
2 name, please.

3 MR. PRYOR: Jerry Pryor from Tacony  
4 Civic.

5 Did you take Jack Kelly's place?

6 MR. LEE: Yes.

7 MR. PRYOR: How long has the EPA  
8 known about this condition on this site?

9 MR. LEE: From the time line I  
10 think I showed you --

11 MR. LABENZ: 1977 --

12 MR. PRYOR: Jim, I asked him.  
13 How long? Pat, do you know?

14 MR. ANDERSON: I guess from the  
15 original oil slicks that were -- the oil was seen on  
16 the water, that goes back to the late seventies. So  
17 it's been 15, 18 years.

18 MR. PRYOR: How long have you been  
19 on your job now?

20 MR. LEE: 1993.

21 MR. PRYOR: When I was dealing with  
22 Jack Kelly, we visited the site and the awareness of  
23 that tank that was there, there were contents of oil  
24 in the tank, PCBs. Was it ever removed?

25 MR. LEE: When was that?

1 MR. PRYOR: Before you took the  
2 job.

3 MR. ANDERSON: The tank is coming  
4 out. That's part of the remedy as you saw.

5 MR. PRYOR: I didn't ask about  
6 that, Pat. I knew the tank was coming out. We are  
7 now two and a half to three years down the line and  
8 the tank is still in the ground. The question I have  
9 is was the oil removed at the time when they were  
10 aware of it in 1991, 1992?

11 MR. LEE: When we were on site  
12 about 1993, 1994 to try to investigate what's in the  
13 tank, they came across a solid slab of concrete and  
14 couldn't get beyond that solid slab of concrete except  
15 to smash it up and pull it out. So that was just for  
16 investigation so we didn't go any further.

17 MR. PRYOR: So there was no removal  
18 of anything?

19 MR. LEE: No. That was the reason.

20 MR. LABENZ: You just allowed it  
21 to continue to contaminate?

22 MR. ANDERSON: There were reports  
23 that the tank was drained and filled with inert  
24 materials, such as sand. That's what the reports  
25 show. We don't have enough evidence to verify that so

1 we're pulling the tank. The fact that we didn't do it  
2 two and a half years ago, you're right, if there are  
3 still oils there that's allowing the material to  
4 release, that's been going on for that time, yes.

5 MR. PRYOR: And it will go on for  
6 two and a half to four years. Is it going to be out  
7 of there soon?

8 MR. ANDERSON: Yes, as soon as we  
9 can get this record of decision made, we're going to  
10 get it the hell out of there.

11 MR. PRYOR: You were talking about  
12 possibly five to six years will transpire before we  
13 even get a lick of --

14 MR. ANDERSON: You're right. It  
15 will be one of the -- not necessarily the first but  
16 probably the -- it will be one of the first items  
17 that will be pulled out.

18 MR. PRYOR: There was a discussion  
19 at the time I had something to do with it about going  
20 after the power companies from Maine to North Carolina  
21 to pay part of this expense and cost. Was that ever  
22 done?

23 MR. LEE: I think that's part of  
24 the group of responsive parties that signed on with  
25 the EPA to do the study and some of them are here in

1 this room today.

2 MR. PRYOR: But did they nail them  
3 down or did they just agree to --

4 MR. ANDERSON: The way this works  
5 is you have two opportunities to be involved in the  
6 process if you are a potentially responsible party.  
7 First, you can do the remedial investigation and  
8 feasibility studies. There's a group of potentially  
9 responsible parties that have done the RI/FS.

10 At the ROD stage there's also the  
11 opportunity to do the work and do the cleanup and pay  
12 for all of that, have their contractors or whoever do  
13 that.

14 We sincerely believe and hope that  
15 that's what we're going to do, that the agency's  
16 position is that it's a situation where if there are  
17 responsible parties, potentially responsible parties,  
18 then those individuals will fund the process and we  
19 enter into a legally binding document that's entered  
20 with the Court to have them continue until the process  
21 is completed.

22 MR. PRYOR: Yeah, but Pat, that's  
23 what we talked about that they were going to do two,  
24 three years ago -- it's four years ago. They had  
25 instituted legal proceeding and were supposed to take

1   them to Court to force them to go along with it.

2                   MR. ANDERSON:   What I'm saying is  
3   the work has been done to this point by them and we  
4   hope they'll continue to do it.   If in fact they  
5   decide not to, we have different ways of going.   We  
6   can do it ourselves by using the Superfund Trust that  
7   has money in it, as of the moment anyway.   Or we can  
8   order them.   We have our own powers to issue a  
9   unilateral order telling them they have to do the  
10  work.

11                  MR. PRYOR:   Well, though, you see  
12  my concern.   The problem is that if we're now at a  
13  point where we all agree that we're going to do A, B,  
14  C, and we don't have them nailed down, now we've got  
15  another legal process of five years with corporate  
16  lawyers and government lawyers and more expense and  
17  everything else, and the site is still sitting there  
18  unattended.

19                  MR. ANDERSON:   Well, it's not  
20  unattended.

21                  MR. PRYOR:   But it's still leaching  
22  and causing the problem.

23                  MR. RUNDELL:   That's the flip side  
24  of the coin.   One side of the coin says we get the  
25  people who are responsible to clean it up.   The

1   unfortunate part that comes along with that is all the  
2   legal negotiations that draw the process out.  So it's  
3   -- unfortunately you can't have both.  You can't  
4   have speed and have the responsible parties pay for  
5   it.  It doesn't really happen that way.

6                   MR. PRYOR:  But wasn't that part of  
7   the agreement initially?  In other words, when they  
8   talked about it, and I sat in a couple meetings, they  
9   had already started.  Jack Kelly and his staff had  
10  already started to institute proceedings to force  
11  those power companies to come to the table and put up  
12  a fund of some kind.  That's when we left it.  They  
13  were going to let us know what was going to happen as  
14  soon as they did that, and never heard another word.  
15  This is the first time I ever heard anything since  
16  that happened.

17                   MS. McELHONE:  Well, this is the  
18  result of those first meetings.

19                   MR. PRYOR:  You don't know what  
20  you're talking about.  I'm telling you we already sat  
21  and had agreements.

22                   MR. RUNDELL:  The agreement was to  
23  do the work.  And then you have to decide what the  
24  work is.  And it's unfortunately a very long and  
25  tedious and frustrating process.



1 MR. ANDERSON: The way the process  
2 breaks down, you know, it's not just a soup to nuts  
3 kind of agreement that you do. You do the first  
4 agreement to do the remedial investigation feasibility  
5 study, which is what is completed at this point in  
6 time.

7 And then the second half -- and it  
8 doesn't have to take a real long time. You know, if  
9 there's agreement and the attorneys can kind of work  
10 out the different language, then it can happen  
11 relatively quickly. Now, that means months, a couple  
12 of months, not necessarily years. If it goes on more  
13 than a couple of months, then we switch to one of our  
14 other mechanisms, typically a unilateral order  
15 ordering the responsible parties to do the work.

16 MR. LABENZ: Then the lawyers  
17 start.

18 MR. ANDERSON: So I mean we're  
19 close here. When Cesar said two to four years, I  
20 don't know if you heard him say that was from  
21 beginning to end of the project, is what he was  
22 talking about, not to just get it commenced or begun.

23 MR. LABENZ: Well, as Jerry  
24 indicated, and as I'm sure Ginny here, we're quite  
25 concerned about that tank. If it's still leaching,

1 it's still contaminating, that should be your first  
2 priority to at least drain it, investigate it further  
3 and drain it and prevent that. And the next thing is  
4 to pull it out of there once you build your water  
5 wall, so to speak.

6 MR. ANDERSON: Yes, sequentially it  
7 will be one of the first things that's going to come  
8 off there.

9 MR. PRYOR: Couldn't that have  
10 been done before, Pat? Couldn't that have been done  
11 three, four years ago when they were aware what the  
12 hell the condition was and go and initially take the  
13 primary source of what the problem was and then deal  
14 with the rest of it later?

15 MR. ANDERSON: It was generally  
16 believed, again, that it had been emptied, that it had  
17 been cleaned and that it had been filled. It was only  
18 when we tried to confirm that and show absolutely that  
19 that was the case, and we couldn't get to it without  
20 drilling some way in on a weird angle or something  
21 like that, that we decided that it had to come out  
22 because we couldn't confirm that there wasn't already,  
23 you know, oils that were being stored there.

24 MR. LABENZ: But since it's been  
25 four years since that initial point, wouldn't that be

1 enough, I guess, justification to say, all right,  
2 let's go in there, get that tank out of there right  
3 now, and then go back and hit them with the bill later  
4 on since it is a potential?

5 MR. ANDERSON: We only do that when  
6 there's what we call immediate removal or immediate  
7 threat. The only threat here is actually to the river  
8 and to some of the aquatic life.

9 MR. LEE: Or long term effect.  
10 It's not -- I mean it's not affecting -- people  
11 aren't drinking the water underneath the site.

12 MR. LABENZ: Well, see, that's part  
13 of our major concern, too, because they are. Your  
14 suction for your water works for Northeast  
15 Philadelphia comes from less than a quarter of a mile  
16 away from that site.

17 MR. LEE: We understand that.

18 MR. LABENZ: You know, your water  
19 that this city drinks is taken from there, less than a  
20 quarter of a mile. It's cumulative.

21 MR. ANDERSON: We're very aware of  
22 that.

23 MR. LABENZ: I'm curious to see how  
24 many residents have been tested that don't have access  
25 to bottled water to see if they're accumulating more

1 and more PCBs.

2 MR. RUNDELL: The city water is  
3 tested all the time.

4 MS. McELHONE: I know they had a  
5 mysterious bacteria and they couldn't figure it out.  
6 Instead of solving it, they waited for it to go away.

7 MR. RUNDELL: Getting back to the  
8 tank, it would be nice if we could go out and just  
9 pull it out, but one of the problems that we have to  
10 face when we start sequencing our remediation is that  
11 there's a lot of soil that's above the water table  
12 that has PCB oils absorbed to it. It's just not one  
13 little thin layer. There's a whole smear of oily soil  
14 where the oil is trapped against the soil particles in  
15 the pore spaces. So when we start digging up that  
16 soil and removing the tank, that soil becomes loose  
17 and the oil that's trapped now can flow out. So when  
18 we pull up the tank and create this big hole, we're  
19 also going to have a good size pool of oil sitting  
20 there. So we have to be careful and not have a  
21 release of oil just from our action.

22 So one of the first things we're  
23 going to have to do is get the oil water separator in  
24 there in place so when we do remove the soils and  
25 tank, whatever release of oil occurs, is captured

1 either by skimmers in the hole or through the skimmers  
2 in the oil water separator.

3 MS. McELHONE: I just have one  
4 question. I noticed in your graph the Wissahickon  
5 shift, the Trentonian gravel, and the next layer of  
6 silts and soils, are you telling me that's a sealant  
7 between the contaminated river bed and the Trentonian  
8 gravel which is the groundwater? I'm just asking.

9 MR. RUNDELL: It's what's called an  
10 aquitard. It's a barrier.

11 MS. McELHONE: Would it help if I  
12 said I have geology training?

13 MR. RUNDELL: Yes, it is. The  
14 groundwater --

15 MS. McELHONE: And you've tested it  
16 and it's in place and there's no --

17 MR. RUNDELL: Our wells drill down  
18 -- we don't drill through it because we don't want  
19 to create a hole and pathway, but we drilled down to  
20 that depth, not in all the wells but in a number of  
21 the wells.

22 MS. McELHONE: Okay.

23 MR. RUNDELL: -- to that depth.  
24 And you can see it in the mudflats where that layer  
25 is. At the edge of the mudflats is where it inches

1 out.

2 MS. McELHONE: And you're going to  
3 clear out the mudflats, put in the cofferdam, then  
4 you're going to pull the tank out?

5 MR. RUNDELL: Right.

6 MS. McELHONE: And put in the oil  
7 separator or put in the oil separator and then pull  
8 the tank, and the oil separator will also contain the  
9 PCB screen so that the water flowing through it will  
10 be washed clear?

11 MR. RUNDELL: The water and the  
12 oils that flow into the oil water separator, the oil  
13 and the PCB are together. So as the oil and water  
14 flow into that separator, the oil layer thickens  
15 because it's sort of backed up, and it all flows  
16 towards those sump pumps where the groundwater can  
17 exit out the bottom and the oil sort of accumulates  
18 and we skim it off the top.

19 MR. ANDERSON: The vehicle for the  
20 PCBs to get out of wherever they are --

21 MS. McELHONE: Is the oil.

22 MR. ANDERSON: -- is the oil. It's  
23 called hydrophobic.

24 MS. McELHONE: I know.

25 MR. ANDERSON: They rather stay

1 with the soil, but mostly they like to stay with the  
2 oil.

3 MS. McELHONE: So you're going to  
4 literally wash the soil clean.

5 MR. RUNDELL: We're going to allow,  
6 in a sense, mother nature to wash it clean. We're  
7 going to get the rinsed water.

8 MS. McELHONE: Okay. Sounds good.

9 MS. BARNETT: Other questions?  
10 Anybody else?

11 Okay. Thank you for coming. We'll  
12 stand up here for a few minutes as long as we can  
13 stand the heat.

14 MR. LABENZ: One other question, I  
15 guess. Is it possible to get copies of your slides  
16 that you put up there, as well as a copy of the  
17 minutes that the stenographer has taken?

18 MS. BARNETT: Yes. The minutes of  
19 this will be placed in the library or the place that  
20 has -- the location --

21 MS. McELHONE: Send it to either  
22 the Tacony Library or the Holmesburg branch. I assure  
23 you that they are well aware of the residents'  
24 interest --

25 MS. BARNETT: Okay.

1 MS. McELHONE: -- and will make  
2 sure they know where it is.

3 MS. BARNETT: Okay. I will do that  
4 then. Sorry for the confusion. Thank you.

5 MS. McELHONE: That's all right.

6 MR. ANDERSON: We find some of the  
7 bigger libraries, what has happened in the past, if  
8 they get a box, they just don't open it right away.  
9 They don't realize something has got to be done with  
10 it.

11 MS. McELHONE: Well, the difference  
12 is they have lots of people so they don't worry about  
13 it because it's somebody else's job. The small  
14 libraries there's only them.

15 MR. ANDERSON: That's a good  
16 suggestion.

17 MS. BARNETT: Well, thank you for  
18 coming out on such a hot evening. I apologize that  
19 there was no air conditioning. We'll be here if  
20 anybody has one-on-one questions.

21 - - -

22 (Whereupon, the hearing was  
23 concluded at 9:13 p.m.)

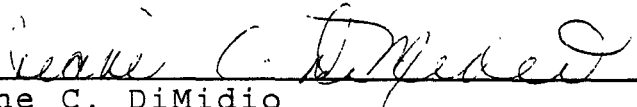
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CERTIFICATION

I, Diane C. DiMidio, hereby  
certify that the proceedings in the foregoing matter  
taken on July 27, 1995, are contained fully and  
accurately in the stenographic notes taken by me, and  
that Pages 1 to 64, inclusive, of this testimony are a  
true and correct transcript of the same.

  
Diane C. DiMidio  
Registered Merit Reporter

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